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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,206	06/22/2001	Dong Do Lee	P66761USO	6181
43569	7590	05/03/2006	EXAMINER	
MAYER, BROWN, ROWE & MAW LLP 1909 K STREET, N.W. WASHINGTON, DC 20006			MOORE JR, MICHAEL J	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/857,206	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Michael J. Moore, Jr.	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,5 and 8 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. 5,924,043) in view of Applicant's Admitted Prior Art (Background section of Specification).

Regarding claim 6, *Takano* teaches a transmission power adjusting method performed by transmit power controller 190a of Figure 10 as spoken of on column 13, lines 25-58.

*Takano* further teaches the reception of a plurality of TPC bits (power magnitude information detected from received downlink signals) from base station 101 as spoken of on column 13, lines 46-50.

*Takano* further teaches an accumulator 114 of Figure 10 that stores TPC bits (power control command) received from base station 101 as spoken of on column 13, lines 46-50.

*Takano* further teaches a speed detector 192 of Figure 10 that detects mobile unit speed based upon received TPC bits (power magnitude) as spoken of on column 13, lines 12-16 as well as on column 13, lines 33-37.

*Takano* further teaches a step selector 116 of Figure 10 that selects an optimal step size based upon the detected mobile speed as spoken of on column 13, lines 33-37.

*Takano* further teaches transmit power controller 190a of Figure 10 that uses speed detector 192 as well as step selector 116 to adjust transmitting power level as spoken of on column 13, lines 28-58.

*Takano* does not explicitly teach the changing of the power control step size every 1.25ms.

However, on page 2, lines 10-30 of Applicant's specification, it is admitted that conventionally, a TPC bit is transmitted from a base station to a mobile station every 1.25ms, which results in a power step adjustment every 1.25ms.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to perform the step size selection of *Takano*

every 1.25ms in order to dynamically provide a proper power adjustment in response to current TPC information from the base station as spoken of on column 13, lines 25-58 of *Takano*.

***Allowable Subject Matter***

4. Claims **1, 2, 4, 5, and 8** are allowable over the prior art of record.

Regarding *amended* claim 1, *Takano* teaches transmit power controller 190a of Figure 10 spoken of on column 13, line 24 – column 14, line 3.

*Takano* also teaches transmit power controller 190a (channel estimator) of Figure 10 that receives a plurality of TPC bits (power magnitude information detected from received downlink signals) from base station 101 as spoken of on column 13, lines 46-50.

*Takano* also teaches speed detector 192 (speed estimator) of Figure 10 that detects mobile unit speed as spoken of on column 13, lines 12-16 as well as on column 13, lines 33-37.

*Takano* also teaches step selector 116 (step adjuster) of Figure 10 that selects an optimal step size based upon the detected speed as spoken of on column 13, lines 33-37.

*Takano* also teaches accumulator 114 (demodulator) of Figure 10 that stores TPC bits (power control command) received from base station 101 as spoken of on column 13, lines 46-50.

*Takano* also teaches transmit power controller 190a (power level controller) of Figure 10 that uses speed detector 192 as well as step selector 116 to adjust transmitting power level as spoken of on column 13, lines 28-58.

*Takano* as well as the other prior art of record fail to teach a measuring means that measures a reliability of the extracted power control command, where the power level controller derives a weighting factor from the measured reliability, multiplies the changed power control step size by the derived weighting factor, and then increments or decrements the power level of transmitting signals by the multiplied step size.

Regarding claims **2, 4, and 5**, these claims are further limiting to *amended* claim **1** and are thus also allowable over the prior art of record.

Regarding claim **8**, *Takano* teaches transmit power controller 190a of Figure 10 that receives a plurality of TPC bits (power control command from received downlink signals) from base station 101 as spoken of on column 13, lines 46-50.

*Takano* as well as the other prior art of record fail to teach calculating a reliability of the extracted power control command, deriving a weighting factor from the calculated reliability, multiplying a determined power control step size by the derived weighting factor, and then increasing or decreasing power level of transmitting signals by the multiplied power control step size according to the extracted power control command.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shiraki et al. (U.S. 6,389,296) as well as Andersson et al. (U.S. 6,334,047) are additional references considered pertinent to this application.

Art Unit: 2616


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:00am - 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.  
Examiner  
Art Unit 2616

mjm MM

  
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